AMENDMENTS TO CLAIMS

1. (Currently Amended) A process for preparing an optically active β -amino acid and an optically active β -amino acid ester or N-substituted 2-homopipecolic acid and an optically active N-substituted 2-homopipecolic acid ester which comprises

selectively hydrolyzing an enantiomer of racemic mixture of an N-substituted β -amino acid alkyl ester or an N-substituted 2-homopipecolic acid ester represented by the formula (I):

$$R^2$$
 R^4
 CO_2R^5
 (I)

wherein Ar represents a substituted or unsubstituted aryl group, R¹ represents a substituted or unsubstituted alkyl group, alkenyl group, a substituted or unsubstituted aralkyl group or a substituted or unsubstituted aryl group, R² represents a hydrogen atom or R¹ and R² are joined covalently to form a C₄ saturated alkylene group, thereby forming a 6-membered ring with R¹ and R² and the atoms to which they are bonded, R³ and R⁴ each independently represent a hydrogen atom, a substituted or unsubstituted alkyl group or a substituted or unsubstituted aryl group, and R⁵ represents a substituted or unsubstituted alkyl group, also, R⁴ and R² may be bonded to form a ring.

in the presence of a hydrolase <u>Candida Antarctica</u> lipase capable of catalyzing the hydrolysis of said enantiomer to form an optically active ((R) or (S))-N-substituted-β-amino acid

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or an optically active ((R) or (S))-N-substituted-2-homopipecolic acid represented by the formula (II):

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$$R^2$$
 R^4
 CO_2H
 (II)

wherein Ar, R⁴, R², R³ and R⁴ have the same meanings as defined above, and simultaneously to obtain an unreacted optically active ((S) or (R))-N-substituted-β-amino acid alkyl ester or an unreacted optically active ((S) or (R))-N-substituted-2-homopipecolic acid ester represented by the formula (III):

$$R^2$$
 R^4
 CO_2R^5
(III)

wherein Ar, R¹, R², R³, R⁴ and R⁵ have the same meanings as defined above, provided that the ester of formula (III) has a reverse steric absolute configuration to that of the compound represented by the formula (II).

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2-3. (Cancelled)

4. (Currently Amended) The preparation process according to Claim 1, wherein the hydrolysis is carried out selectively hydrolyzing is performed in an aqueous solvent, in a buffer solvent, in a 2-phase solvent of an organic solvent and water, or in a 2-phase solvent of an organic solvent and a buffer.

- 5. (Currently Amended) The preparation process according to Claim 4, wherein the organic solvent is an aliphatic hydrocarbon, an aromatic hydrocarbon, [[or]] an ether, or a mixed solvent thereof.
- 6. (Currently Amended) The preparation process according to Claim 1, wherein the compound represented by the formula (I) is a N-substituted-β-amino acid alkyl ester represented by the following formula (I-a):

$$R^{1}$$
 R^{3}
 $CO_{2}R^{5}$
 R^{1}
 R^{2}
 $CO_{2}R^{5}$

wherein Ar, R⁴, R², R³, R⁴ and R⁵ have the same meanings as defined above wherein Ar represents a substituted or unsubstituted aryl group, R¹ represents a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group or a substituted or unsubstituted aryl group, R² represents a hydrogen atom or R¹ and R² are joined covalently to form a C₄ saturated alkylene group, thereby forming a 6-membered ring with R¹ and R² and the atoms to which they are bonded, R³ and R⁴ each independently represent a hydrogen atom, a

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substituted or unsubstituted alkyl group or a substituted or unsubstituted aryl group, and R⁵ represents a substituted or unsubstituted alkyl group, and

wherein the compounds represented by the formula (II) and the formula (III) are an optically active ((R) or (S))-N-substituted- β -amino acid and an optically active ((S) or (R))-N-substituted- β -amino acid alkyl ester represented by the following formulae (II-a) and (III-a):

$$R^{3}$$
 R^{4}
 R^{4}
 R^{4}
 R^{4}
 R^{4}
 R^{5}
 R^{1}
 R^{4}
 R^{5}
 R^{1}
 R^{4}
 R^{5}
 R^{1}
 R^{2}
 R^{1}
 R^{2}
 R^{3}
 R^{4}
 R^{4}
 R^{5}
 R^{1}
 R^{2}
 R^{1}
 R^{2}
 R^{2}
 R^{3}
 R^{4}
 R^{4}
 R^{5}
 R^{5}
 R^{1}

wherein Ar, R⁴, R³, R⁴ and R⁵ have the same meanings as defined above.

7. (Currently Amended) The preparation process according to Claim 1, wherein the compound represented by the formula (I) is an N-substituted-2-homopipecolic acid ester represented by the following formula (I-b):

$$R^3$$
 R^4
 CO_2R^5

wherein Ar, R³, R⁴ and R⁵ have the same meanings as defined above wherein Ar represents a substituted or unsubstituted aryl group, R³ and R⁴ each independently represent a hydrogen atom, a substituted or unsubstituted alkyl group or a substituted or unsubstituted aryl group, and R⁵ represents a substituted or unsubstituted alkyl group, and

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wherein the compounds represented by the formula (II) and the formula (III) are an optically active ((R) or (S))-N-substituted-2-homopipecolic acid and an optically active ((S) or (R))-N-substituted-2-homopipecolic acid ester represented by the following formulae (II-b) and (III-b):

$$\begin{array}{c|c}
 & Ar \\
 & R^3 \\
 & N \\
 & R^4 \\
 & CO_2H \\
 & \star & CO_2R^5
\end{array}$$

$$\begin{array}{c|c}
 & Ar \\
 & R^3 \\
 & \star & CO_2R^5
\end{array}$$

$$\begin{array}{c|c}
 & (III-b)
\end{array}$$

wherein Ar, R³, R⁴ and R⁵ have the same meanings as defined above.

8. (Currently Amended) The preparation process according to Claim 1, wherein each of the optically active ((R) or (S))-N-substituted-β-amino acid or the optically active ((R) or (S))-N-substituted-2-homopipecolic acid represented by the formula (II):

$$R^2$$
 R^4
 CO_2H
(II)

wherein Ar, R¹, R², R³ and R⁴ have the same meanings as defined above wherein Ar represents a substituted or unsubstituted aryl group, R¹ represents a substituted or unsubstituted alkyl group, alkenyl group, a substituted or unsubstituted aralkyl group or a substituted or unsubstituted aryl group, R² represents a hydrogen atom or wherein R¹ and R² are joined covalently to form a C₄ saturated alkylene group, thereby forming a 6-membered ring with R¹

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and the atoms to which they are bonded, and R³ and R⁴ each independently represent a hydrogen atom, a substituted or unsubstituted alkyl group or a substituted or unsubstituted aryl group, and

wherein the unreacted optically active ((S) or (R))-N-substituted- β -amino acid alkyl ester or the unreacted optically active ((S) or (R))-N-substituted-2-homopipecolic acid ester represented by the formula (III):

$$R^2$$
 R^4
 CO_2R^5
(III)

wherein Ar, R¹, R², R³, R⁴ and R⁵ have the same meanings as defined above, wherein R⁵ represents a substituted or unsubstituted alkyl group, provided that the ester of formula (III) has a reverse steric absolute configuration to that of the compound represented by the formula (II), formed by hydrolysis reaction, and provided that the ester of formula (III) is isolated from the mixture thereof.

9. (Currently Amneded) The preparation process according to Claim 7, wherein the optically active ((R) or (S))-N-substituted- β -amino acid represented by the formula (II-a) is optically active N-substituted- β -amino acid represented by the formula (IV-a):

$$R^{1}$$
 R^{3}
 $CO_{2}H$
 $(IV-a)$

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wherein Ar, R³ and R⁴ have the same meanings as defined above wherein Ar represents a substituted or unsubstituted aryl group, and R³ and R⁴ each independently represent a hydrogen atom, a substituted or unsubstituted alkyl group or a substituted or unsubstituted aryl group, and

wherein the unreacted optically active ((S) or (R))-N-substituted-2- β -amino acid ester is an optically active N-substituted- β -amino acid ester represented by the formula (V-a):

$$R^{1}$$
 R^{3}
 R^{4}
 $CO_{2}R^{5}$

10. (Currently Amended) The preparation process according to Claim 7, wherein the optically active ((R) or (S))-N-substituted-2-homopipecolic acid represented by the formula (II-b) is an optically active (R)-N-substituted-2-homopipecolic acid represented by the formula (IV-b):

$$R^3$$
 R^4
 CO_2H
 $(IV-b)$

wherein Ar, R³ and R⁴ have the same meanings as defined above wherein Ar represents a substituted or unsubstituted aryl group, and R³ and R⁴ each independently represent a hydrogen atom, a substituted or unsubstituted alkyl group or a substituted or unsubstituted aryl group, and

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wherein the unreacted optically active ((S) or (R))-N-substituted-2-homopipecolic acid ester represented by the formula (III-b) is an optically active (S)-N-substituted-2-homopipecolic acid ester represented by the formula (V-b):

$$R^3$$
 R^4
 CO_2R^5
 $(V-b)$

wherein Ar, R³, R⁴ and R⁵ have the same meanings as defined above wherein R⁵ represents a substituted or unsubstituted alkyl group.

11-19. (Cancelled)